







**HYDERABAD CAIRN BURIALS AND THEIR  
SIGNIFICANCE.**

## HYDERABAD CAIRN BURIALS AND THEIR SIGNIFICANCE.

[WITH PLATES XXII—XXVIII.]

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CIST-GRAVES, with stone circles, are common in South India, and are found in association with pillar stones, dolmens, etc.

They have been called cairns by many writers and the word will be used in this paper, though the height of the rubble stones inside the circle does not fully justify its use. The subject matter will mainly be confined to one particular type of burial, studied by the writer in the Hyderabad State.

An account will be given of the main structural features and of the methods which have been adopted in opening.

Under separate sections will be considered shortly—(a) Bones ; (b) Pottery and Pot-marks ; (c) Beads ; (d) Gold and silver ; (e) Copper ; (f) Iron.

History, legend and present-day customs will be discussed in connection with the burials and, finally, a short note will be added as to their significance.

### SURFACE FEATURES.

The main surface-indication of the presence of cist-burials is a group of stone circles (Pls. XXII and XXIII). These vary in diameter from about 18 feet to 70 feet or more. Individual stones may weigh as much as five tons, but the average is far smaller. Granite and black stones from intrusive igneous dykes are used indiscriminately, according to the material available.

The site of a cairn field is invariably hard ground, which is not suitable for cultivation. Near by, however, is irrigation, and there can be little doubt that the people who made the cairns lived mainly, as do their present-day successors, by means of this form of cultivation.

Cairns are found singly, in twos and threes, and in groups which may number thousands. Taking Secunderabad as a typical area, within a radius of about five miles six large groups can be seen to-day, and many small. The inference is that each group was but a local burial ground.

The elaborate nature of the grave and the labour involved in constructing it lead to the further inference that important persons alone could have been honoured by this form of interment.

The conclusion can thus be reached that the people who made these cairns held full control of South India for a prolonged period. No figure can be given which even approximately estimates the number of these burials, but for the Hyderabad State alone it cannot be far short of a million. The number of centuries which cover what may be termed the "Cairn Period" must remain at present a matter for mere speculation. In any case, one must infer that considerable intervals of time separate the individual cairns of any one field, and, still more so, the different groups. Variations in the structural features of different types of cairns and in their contents call for co-ordinated study, and one may hope that when this study is taken in hand there may result the possibility of classifying cairns in accordance with their relative age.

A common "variant" type of cairn is to be seen in large numbers between the two Maula Ali hills near Secunderabad, at Begumpet, at Kompilly, and at Raigir. In these the space within the stone circle is nearly filled by a huge granite slab. Under this slab is the cist cavity, and into a cist of this nature at Kompilly, twenty men entered at one time. The mechanical difficulties which face anybody who tries to open up this type of cairn are serious, and so far no real study has been made.

Pillar stones form another important surface feature. In a very large group a mile from the Begumpet railway station four such pillars are found in two definite pairs, each pair being on the north and south line. In a group two miles east of the main Raigir group there is a large circle the most northerly stone of which is a pillar about 25 feet high. A sketch published by Miss Graham a century ago shows that other pillars of this nature exist, incorporated in circles. The fixing of these pillars in the north adds to the significance of the customary north and south position of the cists.

During the opening of ten cairns at Bowenpilly many interesting points were observed as to surface features. Nothing whatever was found inside some of the more clearly defined circles, and it was concluded that these might be merely cenotaphs. This observation has not been confirmed, so far, in other groups. The best results at Bowenpilly were obtained from cairns selected because there was an upstanding heap of rubble stone, this being a certain indication that the cist had not been rifled in the past, and a probable indication that the roof stones would be intact and the cist contents in good condition. To any who desire to open cairns, this point may be commended.

Denudation of ground surface can be observed well in many groups, particularly at Bowenpilly. In one part of the cairn field cists lie deeply buried, and are covered with a layer of rubble stones many feet thick. As one moves across the field the cists are found at a decreasing depth, and roof-stones appear on the surface. Proceeding further, side-stones appear and the deeper parts of cist cavities. Finally, floor-stones are on the present-day ground surface, and areas can be seen which presumably once held cairns of which all trace has now vanished.

Now, these cairn fields are situated on hard ground, consisting mainly of "mooram" soil, the result of decomposition of granitoid gneiss *in situ*. The land surface is the oldest in the world and has never been under the sea since the Vindhyan period. Rain falling directly on to this hard surface is the sole agent which can cause denudation, and we have here a clear indication of considerable age for the burials.

#### THE STRUCTURAL FEATURES OF A CAIRN AND THE METHODS USED IN OPENING.

A cairn having been selected, a clear label is painted on one of the stones of the circle. Thus "R. XIX" can be seen on a stone (Fig. 1, Pl. XXIV), the plate automatically recording the serial number of the cairn. The north and south line is next marked out and a measuring tape placed along this line.

It is convenient to fix this line once and for all by means of paint marks on the stones. Later, when the cist is exposed, the tape can be replaced along this line, and the camera will record the exact deviation of the long axis of the cist from the north and south line.

Excavation can now be commenced, pickaxes being used. As a rule nothing of special interest is found in the surface layers, and for a depth of many feet hard masses of rubble stones need to be removed. The rusted remains of iron axe-heads are sometimes found near the surface, quite close to the stones of the circle. After the rubble has been removed the underlying "mooram" soil is exposed, and the pickaxe continues in use. At a greater or less depth the head- and foot-stones of the cist are found projecting nearly vertically upwards. These are cleared and the roof of the cist exposed. One can now probe the interior of the cist through a hole made between two of the roof-stones. If a cavity is found the outlook is good. If, however, roof-stones have broken and have fallen bodily into the cist cavity, followed by a shower of rubble, it is wiser to abandon the cairn and start on another, for the contents of the cist will be ruined.

The real labour of excavation now begins, though for a time work is easy, for pickaxes can still safely be allowed.

For a wide space round the cist, "mooram" is gradually taken out, care being exercised that no objects are missed.

Finds are made in most unexpected places, but as a rule nothing turns up till a level is reached about half-way down the side-stones. The rim of a pot shows up, and if this was not broken originally it will be broken by the pickaxe which disclosed it. No tool may now be used except small wooden sticks or tent pegs, fine knives, and the like. Bit by bit the soil is broken up, loosened and removed, the pots appearing one by one.

Infinite patience is required and very close control of all who are working. When all is complete the camera records what has been found. The difficulties facing the photographer are considerable, but can be overcome. A long iron ladder

with angle-iron supports straddles the excavation. The camera is held at the top on a movable wooden extension piece, which allows of any position being used. Dawn provides ideal light conditions, illumination being diffused even in the deepest corners of the excavation. An actinometer infallibly dictates the exposure, while the use of lenses of different focal lengths gives one complete control of the area which is to be included in the record. For the finest work a stop of F/64 and a slow, fine-grained plate can be recommended. In this manner a series of photographs can be obtained showing in plan view every cist which has been exposed, with the pots surrounding it.

Pl. XXIV, Fig. 1, of Raigir XIX, shows a stage of excavation. The earth which has been removed is seen as a dark ring outside the circle of stones.

The top of the cist of Raigir XIX is seen to lie fairly near the surface, and the long axis is within 5 degrees of the north and south line. This is an average deviation, some cists lying within 1 degree of north, while, as an extreme exception, the cist of Raigir XXIV pointed north-east. Innumerable cairns have been opened in the past by villagers for the purpose of rifling the cists, and there is ample material for study lying exposed. It is clear that a north and south direction of the cist was an important item in the ritual of the cairn builder.

In the second photograph of Raigir XIX (Pl. XXIV, Fig. 2) the ladder camera-stand has been moved up over the excavation so that the lens is nearly above the centre of the cist, and the camera is pointing downwards. The cist is seen to be surrounded by pots, and the arrangement of these pots may be taken as typical. Note a group of small pots to the north, near the foot-rule, with no corresponding group to the south. Such groups are often seen, and in many cases are so far away from the centre of the cairn that they lie under the stones of the circle, and undercutting is required to expose them.

On the whole, the pots are in good condition, and many are still intact. It is for this reason that the Raigir field has been chosen for exploration, for one cairn at Raigir will produce more material for study outside the cist than will ten or twenty at Maula Ali, Bowenpilly, or Dornakal.

The pots can now be removed, and it is advisable to label each to show the position it occupied. Pots can then at any time be compared with the original photographic record, and as an example of the utility of this, one may refer to the line drawing of the pot-marks of Raigir XXIII. (Text-fig. 1, p. 151.)

As pots are taken out others will be found under them, and many unexpected treasures come to light. Broken ring-stands are common. These pots have been subjected to great pressure for a long period, and it is to be noted that if a lid has given way so that earth has freely entered a large pot, the pot itself may be intact. Conversely, if the pot has collapsed the lid may be intact. Some of the large pots were originally used as protective receptacles for small pots, so that it is always worth while to search inside the fragments of every pot, however broken it may



appear. Iron sickles, etc., are also found, placed inside pots. Iron axe-heads and knives, copper ornaments and bells, grindstones, etc., come to light, placed in the most unexpected positions.

#### THE CIST.

The cist of Raigir XIX is seen in plan view, but this gives a false impression. The photographs of Bowenpilly (Pl. XXV) show the construction of a cist to better advantage.

Deep in the ground, sometimes over 16 feet below the present-day surface, lies a floor-stone, with its long axis north and south. This stone is commonly about 7 feet long, 4 to 5 feet wide and 6 inches thick. On its ends rest the head- and foot-stones. These are about 8 feet high, or more, and converge towards each other at their tops. Along the edges of the floor-stone rest the big side-stones. These measure from 5 to 9 feet in height and from 7 to 11 feet in length, so that they project beyond the ends of the floor-stone to the north and south. They lean against the edges of the upright head- and foot-stones. Resting on the top edges of the side-stones are the roof-stones, these in their turn keeping apart the head- and foot-stones. The general construction of a cist is identical with that of a child's "house of cards."

These stones have been carefully shaped so as to make the box as earth-tight as possible. Note in Raigir XIX (Pl. XXIV, Fig. 2) two stones on the roof, over a junction of two roof-stones. Gaps were found under them, through which silt would have poured into the cavity.

A study of the exterior of a cist proves that the builders of the cairns intended to prevent stones and earth from entering the cavity. Meadows Taylor, in particular, misunderstood this point, with serious results.

The double convergence of the side- and head-stones causes the upper opening of the cist to be constricted, and the only satisfactory method of studying cist contents is to lay the box open. A trench is dug along the whole length of a side-stone to the bottom, and this entails work to at least 4 feet deeper than the pots. Pickaxes can again be used safely. During this work of digging the trench a row of stones will be found in every cairn at Raigir, at a level just below that of the pots.

These stones surround the cist and afford an interesting problem. It has been remarked above that either to the north or to the south of the cist, groups of pots are found so far from the centre of the cairn that they lie *under* the circle.

Taking the original depth of a cairn at 20 feet (Meadows Taylor found many much more than this), great difficulty would be found in placing the heavy cist-stones in position, unless there was a sloping entrance. Thus, in Raigir XIX the downward ramp would have been from the north, and in Raigir XVIII from the south.

Cairns such as Raigir II, V, and XXIV show by their skeletal remains that a fresh body had been buried, and the inference is that the cairn was ready for use

before the death took place ; for days or weeks would be needed before the work was completed.

Taking the above points together (the layer of stones round the cist, the pot-groups lying under the stone circle, the original depth of the cavity, and the evidence of burial of fresh bodies), one can put forward an explanation which at the worst forms a useful guide to anyone who opens these cairns. The workers dug a deep hole with an entrance sloping down either from the north or the south. Down this ramp they slid the cist stones and placed them in position, north and south. They then filled in the cavity to a depth of about 4 or 5 feet, to hold the cist-stones firmly, and faced the surface with a layer of stones.

The cairn was then ready for use at any moment, and in the direction of the ramp there would be more room for pots than at the opposite end. The last feature of the cairn to be completed would be the placing in position of the stones in the circle, and in many instances these would lie on top of such pots as had been placed in the lower part of the ramp.

#### THE OPENING OF A CIST.

Heavy roof-stones are dangerous to handle. A stone which may weigh over half a ton is supported on two long crowbars, and it is a simple matter to slide the stone sideways. The crowbars are lashed together, and when all is ready the workmen are told to come up out of the excavation. The rope is pulled, and the stone falls over on the side opposite the side-stone which is to be turned over. If no precautions are taken, grave injuries might result to the men, either through the stone itself or from crowbars being flipped in all directions. A few touches with a crowbar and the side-stone is now everted, disclosing the cist cavity. If the stones were a bad fit, the whole interior will be found filled with earth and stones. In most cases a space is left at the top, and the undisturbed work of the white ant is seen. In Bowenpilly VII and X and in Raigir XI the amount of silt which had worked its way inside was slight, and some of the cist contents projected into the air. In Bowenpilly VII a fine iron trident stood up in the north-east corner, bearing on its shaft an attachment which was clearly intended to represent the framework of a buffalo. Note the photographs of Bowenpilly I (Pl. XXV) and the manner in which the silt has come in at the corners of the cist. This silt is fine, and Meadows Taylor concluded that since it differed from any earth near by it must have been brought from a distance, to be specially placed inside the cists. Such faulty reasoning leads to serious defects.

There now comes the business of removing this earth, and in a cairn such as Raigir XXIV over 12 tons required to be handled.

The pick and shovel may be used freely until the lower depths are approached. When no more than a foot of silt is left, pots, etc., may be found at any moment, and it is well to revert to the small sticks. The silt is softer than the soil amidst

which the pots outside the cist are found, and progress is quick. It is well at this stage to confine the work to one end of the cist and to clear all silt right down to the floor-stone. If bony remains are found they should be left till later, but pots can be fully cleared. Photography is easy, for except at mid-day a sheet can be put up covering the opening and diffusing the light. The main photograph should show all the cist contents in their original position, and may be taken from ground level. The illustration (Pl. XXV, Fig. 5) of Bowenpilly I shows the silt in process of removal, the south-west corner in this case being cleared first.

Bones require special care, and a full knowledge of the human skeleton is essential if grave error is to be avoided. The common condition of such bony remnants as are present resembles ancient putty from a window frame, and little can be made out.

Great interest, however, attaches to fragments on certain occasions, and it may be possible to determine the age or sex of the person buried. The problem of human sacrifice is again only to be dealt with by those who know one bone from another.

It is a good rule to remove all pots temporarily before any attempt is made to examine the bones. Fine sticks can be used, and thin knives. A brush is also useful. Extended skeletons, as in Raigir II, V, and XXIV, can be cleared of silt without much difficulty, for all the bones lie in one plane on the floor-stone. Contracted skeletons are far more difficult to tackle, and huddled masses of bones of several persons are still more troublesome.

In Raigir II prolonged work was rewarded, for it could be proved that two left hip joints and a left elbow joint lay over two skulls. This mass lay to the west of an extended skeleton which was complete as regards neck vertebræ. A detached cervical vertebra was found elsewhere, and confirmed the curious position of individual bones in the huddled mass in suggesting that this mass represented two males who had been killed so that they might accompany the man, who had been buried lying on his back, with his dagger between his left wrist and his hip.

In Raigir XXI a single skeleton lay in the contracted position in the centre of the cist, head to the north. The skull showed female characteristics, and seven very small beads were found among the bones when these were subjected to close examination. A fine sieve assists in such a search.

Raigir XIII was a most interesting cairn, and the photograph (Pl. XXVI, Fig. 1) shows the floor of the cist. To the south is a pot, and near it is a large iron knife. In the centre of the cist is a heaped mass of bones from two large males. In the north-east corner is a collection of lapis lazuli beads,  $6\frac{1}{2}$  ounces in weight. Behind lie a fine curry stone, an iron dish, and in the south-west corner a trident, handle up. The forks of the trident, and an attachment similar to that found in the open cavity of the cist in Bowenpilly VII, were buried in silt and had rusted almost out of recognition. Now this cairn and Raigir XIV formed a definite pair, with circles 33 feet in diameter,

and were selected for opening as they bore such a resemblance to two other cairns of the same size, both of which had yielded lapis lazuli beads, the "double circle" pot-mark, and the bones of a small child (? female). Raigir XIV yielded no beads, no double circle mark, and bones from two males occupied the cist, with no pots. The presence outside the cist of copper ornaments and grindstones, brought in, however, a domestic atmosphere, and it was by no means certain that the male bodies were not merely servants, slain as companions to someone of whom no trace was found. The cairn labelled R. XIII was opened next, and above the cist a fine copper bell was found, with two fillets which fitted the neck of a calf. Numerous pots bore the double circle mark, so far only found in association with lapis beads. The bell suggested a pet calf, and it was anticipated that lapis would be found in the cist, and the bones of a girl. The lapis beads were soon discovered, but the bones were those of two hulking males, huddled up. The iron dish and the curry-stone suggested cooking and the female sex, but the iron knife clearly appertained to the male sex. Later the pot was removed, and while the writer and a friend were attempting to disentangle the trident and its attachments, Mahomed Beg, our faithful foreman, cleaned the pot. He also had expected to find bones from a child, and from the ground surface, fully 15 feet above us, we heard him remark, "The bones of the little girl are in this pot." We were dealing with an urn burial.

The male skeletons now appeared in a different light, and seemed to be associated with the big knife. Had the knife been the weapon with which these servants had been slain so that they might accompany their young mistress to the Other World? Had the child died unexpectedly, when no suitable cairn was ready for her use? The small, disintegrated bones which lay in the pot suggested a secondary interment, but no sure answer will ever be forthcoming to our questions. There remains the strong probability that some definite association exists between a particular pot-mark and the burial of a young girl.

Two more points in connection with cists may be mentioned. In Raigir XXIV the clearance inside the cist cavity was over 6 feet 6 inches, yet there was nothing in the cist which projected for more than a few inches above the floor-stone. The huge cavity was wasted. Does this imply that bodies were placed in these cists in funeral chairs of some kind? The white ant would have destroyed all traces of woodwork. If this suggestion is correct, much is explained. Cist cavities, up to 9 feet in vertical height, as in Bowenpilly IV, cease to cause surprise, and the extraordinary confusion of bones noted in some cairns is equally explained.

In some cairn fields, particularly the group north of Maula Ali, the cist slabs are so rotten that with the forefinger one can scratch a hole through a slab. Near by lies an edict stone with the common Sun and Moon symbols, and dating back seven centuries or more. This stone is of the same granite and looks as if it had been carved yesterday. It seems that under some circumstances granite decomposes rapidly, and two common agents are salt and wood ash from jungle fires, etc.

Neither of these agents can have acted at Maula Ali. The cist slabs have lain deeply buried under open scrub jungle, excluding wood ash, while, geologically speaking, the Deccan granite areas are well known as being the oldest land surface of our planet and never to have been under the sea. Sub-soil water contains a very small salt element, and this disintegration of cist slabs which is to be seen in some groups confirms surface denudation in suggesting a considerable age for the cairns.

#### BONES AND BODY POSITIONS.

The commonest body position is with the knees to the chin and the head to the north. As a rule, disintegration is so marked that little more can be made out.

Multiple burials are as common as single, and there is no suggestion that a cist was ever opened at a later date so as to put additional bodies beside those which were placed there originally. In Raigir XVII seven contracted bodies were distinguished, and of these the skulls of three were in good condition.

Extended burials have been found in three cairns at Raigir out of twenty-four. In Raigir XXIV a female skeleton lay on its back, head as usual to the north. The remains of two other persons lay in the cist, but little could be made out. In Raigir II a male skeleton lay, as in Raigir XXIV, with two heaped skeletons to the west. These have been mentioned already, and since under no circumstances can a man come to sit on his own head, it was concluded that the heads had been cut off and thrown into the cist first, followed by the bodies. Meadows Taylor showed, during his excavations at Raichur sixty years ago, that human sacrifice was common, and his findings can be confirmed. In Raigir V the extended skeleton lay on its back, head to the north, but on the west instead of the east side of the cist. In the north-east corner of the cist were two skulls, separate from any other bones. In the south-east corner lay the other parts of the skeletons from which these two skulls had come, and there was little doubt that again we were looking at evidence of sacrifice. Raigir XIII has already been mentioned as another possible example.

Urn burials are found rarely at Raigir and at Dornakal. Burnt bones are also found occasionally at Raigir and Dornakal. At Motamurree, some miles further to the east, cairns of a different type are found, and in these burnt bones seem to be the rule. Co-ordinated investigation alone will decide whether or no these differences in body position, etc., imply a difference in date.

Skulls are disappointing. The three skulls of Raigir XVII were ruined by violent rain, but appeared to have an index of about 75. One of the two skulls in Raigir V which lay in the corner, and were presumably from persons who had been sacrificed, had an index of nearly 90. This figure is without value as a means of determining the racial characteristics of the people who made the cairns, for we must presume that such a skull came from a servant, possibly of a subject race.

The skull from the extended skeleton of Raigir XXIV was in fair condition, and gave an index of 76. This figure is of importance, if any single measurement is ever of importance, for it is safe to conclude that this lady with her lapis beads was the person for whom the cairn has been made.

The cairn builder seems to have had small bones and to have been about 5 feet 6 inches in height. All three extended burials were of this height or half an inch less. There is a great contrast between such bones and the bones which come from persons whom one must presume were sacrificed, for these latter are massive. The huddled position of the bones and the impossibility of clearing the skeleton properly, prevents any exact estimate of height being given, but individual bones are longer than those from persons who clearly belonged to the race of cairn builders.

#### POTTERY.

This can roughly be divided into two classes : (a) Red pots ; (b) Black pots, with red bases.

(a) *Red Pots*.—Several pots of characteristic size and shape can be seen in the photograph of Raigir XIX (Pl. XXIV, Fig. 2), in position as found. For their support some form of ring-stand is needed, and from the paucity of ring-stands in the burials one may presume that the form commonly in use was of plaited grass or palm leaf, as in use to-day. These pots are oval in section, and the base where it meets the ring-stand is usually spherical (Pl. XXVII).

There is thus a large area of support in whatever position the pot chances to be in. The modern potter has much to say on this point. It is difficult to make a large pot with a flat base, for any attempt to move it results in pressure being exerted on one part of the edge, and the edge crushes in. He makes his flower pots with narrow and very thick edges to ensure strength, and the effect is clumsy. An oval pot, to be supported on a ring-stand, can be made uniformly thin and yet be stronger than the clumsy flat-based pot. The first inventor of this form of pot-shape was a mechanical genius.

These pots are often ornamented with incised patterns, and, rarely, with painted patterns (Pl. XXVII), the design being geometrical, and possibly in imitation of basket work.

The lids of the big pots of Raigir XIX have broken and the fragments lie in the earth which fills the interior of each pot. Three small pots, however, show lids shaped like flat dishes and placed on their pots concavity upwards. Sometimes they have their convexity upwards, and in this respect as well as in their shape are the exact counterpart of lids made to-day. These special lids form the only real direct connection between the burials and modern India.

(b) *Black Pots*.—These were fired base up, and the exposed base is red. The black upper parts are polished. A broken pot of this type can be seen in Raigir XIX to the left of the cist, its red base showing as a thin ring on the right-hand side.

A commoner shape for these black pots is dish-like, and as many as eight have been found inside one of the large red pots. They have special lids, conical in section, of varied and sometimes pleasing design. Black pottery ring-stands are sometimes found in position under them.

A full expert description of the pottery has yet to be made. Some pots appear to have been hand-made, others turned on the wheel at a revolution rate of about fifty per minute. Other pots again seem to be partly wheel- and partly hand-made.

#### POT MARKS.

These present a very interesting problem. Their occurrence is widespread over South India and they have received various titles, such as "potters' marks" and "owners' marks." Largely as a result of these titles they have been considered as having no special interest.

Now these marks are not part of the pot as originally made, but have been scratched on afterwards, and often in the most casual manner. They are not put on by the potter.

The expression "owners' marks" is equally open to criticism. It implies a definite intention to distinguish ownership, and a close study of many marks fails to reveal any confirmatory evidence that the pot marks are of this nature. A glance at the collected marks of one burial, Raigir XXIII (Fig. 1) brings out many points of interest. In the centre of the diagram is an outline drawing of the excavation as seen from the ladder stand. The original position of all the pots which bore marks is indicated round this central sketch. Alongside each pot is a copy of the marks. In this burial two marks were found on each pot, three being the common number elsewhere. Note firstly that at least two sets of marks are found, excluding any idea of ownership of one individual, *e.g.* of the person who was being buried. Again, note the different "handwritings." In most burials where there are many pot marks four or five people were clearly concerned. Note the top left-hand mark, and the same mark at the bottom in the middle. Summon a malee woman who has never held in her hand a pencil, nor at any time made any attempt to write, hand to her a broken piece of pot and a sharp instrument and instruct her to copy a clearly executed mark. She fumbles, repeats lines, and, after infinite labour and with much distress, she produces a result closely resembling that seen in the lower mark of the diagram. Duplication of lines is her strong point. It is obvious that many of these pot marks are the work of ignorant persons who have attempted to copy symbols. Tribal "owners' marks" they may be, but not the "owners' marks" of individuals.

The same mark turns up in burial after burial in the same group, and in group after group, though these be a hundred miles and more apart. We must presume

that centuries at least separate burials which produce the same marks, and combinations of marks; and there is a strong probability that they are symbols of some kind which were of importance in their day. They do not indicate the contents of the pot, for the same mark is found on pots of all sizes and shapes.

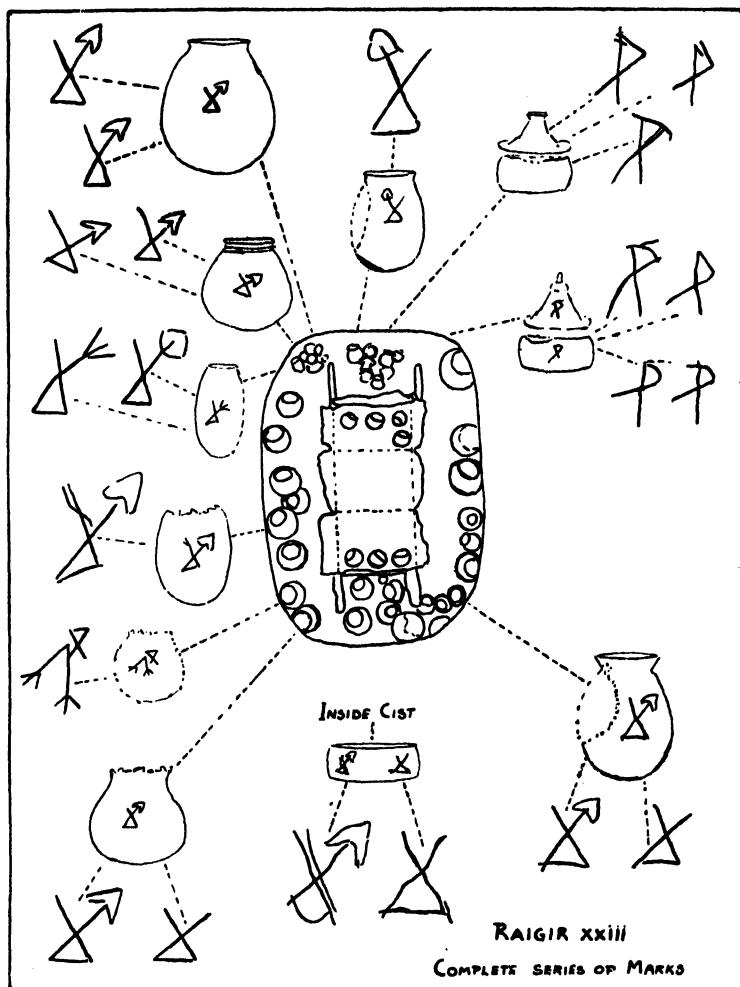


FIG. 1.—RAIGIR XXIII. POT MARKS.

The "double circle" mark has been discussed in connection with Raigir XIII and seems to hint at a symbol indicating a young girl.

The marks found at Raigir, Bowenpilly, Dornakal, Motamurree, and Markapur are shown on one sheet (Fig. 2), and most of these have been found repeatedly. It is rare now to find a new mark.



The first line shows a common set in which one seems to note the development of a simple symbol from a diagram of a crossed axe and spade, or similar objects.

The second line includes two marks closely resembling two early forms of the "Ka" mark of Egypt.

The third line includes variations of a very common combination of a double curve and fork.

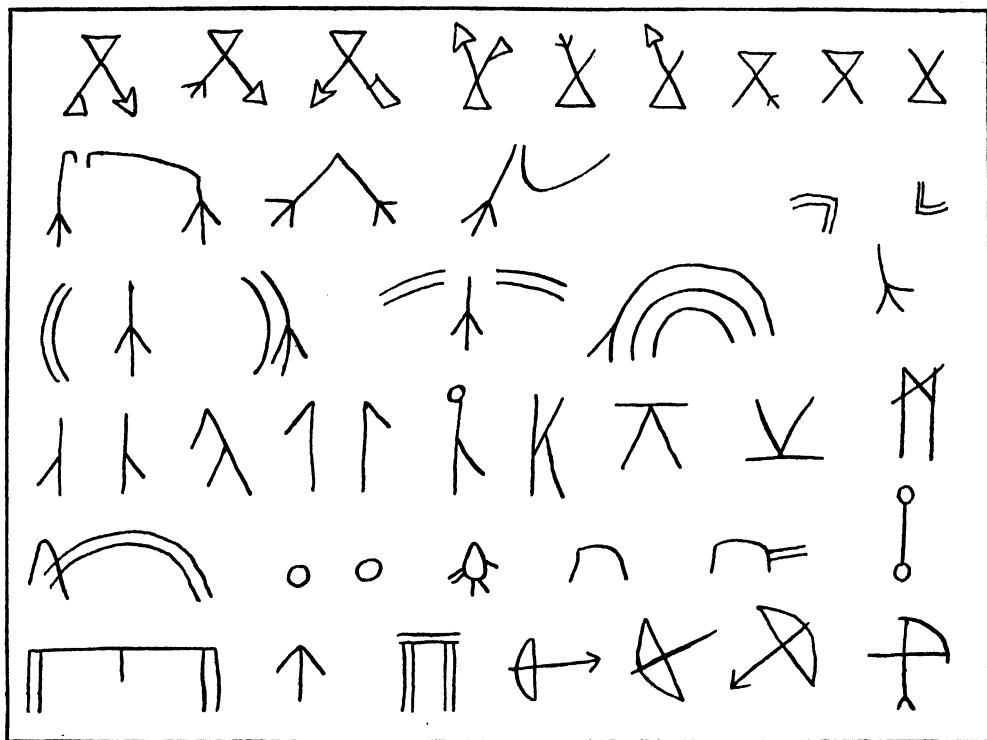


FIG. 2.—COLLECTED MARKS.

The fourth line shows common and simple marks.

The fifth line includes the "double circle" mark, while the sixth line shows among other things a curious and deformed bow and arrow.

It is clear that much further study of these marks is needed.

#### BEADS.

These are found in a fair proportion of cists. Lapis lazuli, quartz and carnelian are common materials.

They seem to be most commonly associated with female burials, and their small size entails very careful search, and sifting of soil. In two cairns (Raigir XIII and XVI) large collections of beads were found separate from bones, in the north-east corners of the cists.

The softer stones have been drilled straight through, but in the case of quartz the hole is drilled from each end, and a close examination of the inner surface of the hole shows that the drill was probably a reed covered with emery or other hard powder.

Lapis lazuli has the special interest of being a stone which is probably, but not certainly, foreign to India. Cashmere and Persia are possible sources.

#### GOLD AND SILVER.

These are very rare, and the writer has only found these metals in one cairn out of over fifty. Among the bones of a small child, ? female, in Raigir III were some small beads of lapis and carnelian, and three small wire rings, deeply corroded. An expert mining assayer cleaned portions and found them to be made of silver plated with gold. The gold seems to bring in an association with the ancient gold mines of the "Old Men" of Hutti, 640 feet deep, to this day a mystery.

#### COPPER.

This is found fairly frequently, and Meadows Taylor had the good fortune to find many bells. The writer has found one only, in Raigir XIII. Two copper bands found attached to this bell fitted the neck of a calf. Dishes are also found, and ornaments, as in Raigir XIV.

These copper articles are mostly broken almost out of all recognition, "the metal having changed back again into an ore," as the assayer put it. The actual compound seems to be a copper silicate.

Bronze does not seem to occur.

#### IRON.

Iron weapons and other articles are constantly found, and it is clear that these burials belong to a definite Iron-Age.

Usually it is in a sad condition of rust, and it may only be possible to say, "Once upon a time, something made of iron lay here." Standing upright in Bowenpilly VII and in Raigir XIII were two iron tridents, the prong end of the former and the handle end of the latter trident being still metallic. Dishes, arrow-heads, knives, spears, axes, etc., are found. Of all these the most interesting was the Bowenpilly trident, standing up in the air-space of the cist, the lower end of the handle alone being corroded badly. The prongs had been riveted to the handle, and to the shaft a clamp was fixed, holding a peculiar attachment which resembled the framework of a buffalo.

In many countries the presence of iron would establish a limiting date, but it is most unwise to apply to India sequence dates which have been worked out elsewhere. Iron ore, of excellent quality, is present in enormous quantity on the surface, and is readily reduced. A bonfire, or even an accidental forest fire, may result in "bloom" steel being found in the ashes.

Old, forgotten iron workings are noted by mining experts to be of prodigious size. The extensive indigenous iron-works of the villages, studied by Dr. Voysey and others, have now mostly closed down, but it is still possible to get steel of excellent quality, smelted locally. In 1820 traders from Ispahan were taking local steel from Nirmal, and it is probable that the famous Damascus blades were made from this material.

Classical authors, such as Aristotle and Galen, specify Indian steel. Finally, there is the Delhi iron pillar, rustless to this day, 48 feet 6 inches long and 5 feet 6 inches in circumference, whose like could not have been made in Europe till the middle of last century.

Taking the above into consideration, it is clear that no limiting date can be named prior to which iron was unknown in South India.

#### THE SIGNIFICANCE OF THESE CIST-GRAVES.

In the section of this paper which deals with the physical features of the burials, two points were noted which afford evidence of considerable age: (a) Denudation to a depth of fully 15 feet of the hard soil in which the cists are buried; (b) Rotting of granite slabs.

Some of the pottery bears a close resemblance to that made by the modern Indian potter, and in the case of one special lid-shape this resemblance is so striking as to afford proof that the potter has continued his trade with no violent interruption.

Iron tridents also appear to bring in a direct connection with modern India. With these, resemblances cease.

History gives no clue. As regards the Hyderabad State, we can be confident as far back as Asoka. His edict stone at Maski, near the old gold workings of Hutti, implies that his influence extended at least over the Raichur area of cist-burials and dolmens explored by Meadows Taylor. Further north, history is extended by the Vedic writings, and it is, perhaps, significant that these writings are silent and give no hint of any knowledge of people who used this form of burial.

Legend again affords no assistance. "These are the graves of the enemies of our ancestors." This was the sole legend which Mr. Wakefield could find in the Hyderabad State. Two years ago some cultivators at Raigir built a hut in the centre of a circle. They explained that they had no fear of the ghosts of those buried under them, as the people who were buried had no connection with them.

The customs of modern inhabitants of South India bring in so little connection with the ideas represented by the burials that one is left with the impression that the people who made the cist-graves are a "lost race."

Who, then, were these people? To this question no answer is forthcoming. An early speculator was Miss Graham, who, a century ago, published a sketch of "Indian Cairns," and likened them to "Druidical-remains" in England. Meadows Taylor followed, and his sketches of the holed dolmens of France and of Rajunkalur

are reproduced in many works. Attention has also been drawn to the striking resemblance between some of the pot-burials of South India and those of Mesopotamia.

An even more striking series of similarities between the early Indian burials and those of Egypt may here be mentioned.

Mr. H. Balfour drew the attention of the writer in 1920 to the manner in which the polished black pots with red bases from Raigir resembled pottery of the Egyptian 2nd predynastic period.

On the following day another high authority pointed out that the Raigir pot-marks resembled those of other countries, noting particularly the "Ka" mark of Egypt.

In following up these clues, others have come to light. Perhaps the most striking point of all is the manner in which the burials of Tarkhan in Egypt resemble in their general arrangement those of such a place as Raigir. Careful scrutiny of selected photographs is needed to distinguish the remains of an early Indian, surrounded by his pots, from those of an early Egyptian. Further, though different body positions are found, in both countries the long axis of the grave lies north and south.

Again, lapis lazuli beads are found, though the stone is foreign to Egypt and probably so to India. Persia may well be a common source.

It may be remarked that the final typing of this paper is being done in the camp of Prof. Sir Flinders Petrie at Qau el Kebir, where the writer has been privileged to witness the opening of burials from the early predynastic period to the VIth dynasty. The red pots of Raigir resemble in shape, etc., those found in the early dynastic period of Egypt, while some of the first prehistoric Egyptian black and red pots bear a close resemblance to the Indian black and red pots.

As regards the pot-marks, apart from the "Ka" mark, the general resemblance is such that it does not seem wise to dismiss it as coincidence.

Of points in common, but unconnected with the burials, one may mention cultivation by irrigation.

The most striking point of all is the similarity between the intertwined snakes of prehistoric Egypt and those of modern South India (Fig. 3). (*Ancient Egypt*, 1917, Pt. I.)

In this connection Prof. Flinders Petrie has kindly written the following note:—

"The pre-Aryan civilization in India produced pottery resembling some of that of the IVth dynasty in Egypt (2800 or 4800 B.C.). Yet the connection cannot have been direct, as the iron common in India then was not traded to Egypt, or only very rarely.

"The link is indicated by the earliest figures of the intertwined serpents and rosettes found in the 2nd prehistoric period of Egypt (4000 or 6000 B.C.), and also

in Mesopotamia, and much later in India. Though the rosette seems not to have been found with the snakes in Mesopotamia, yet it is likely to occur there, as the rosette is from that region in later times. Thus the indication is of a common source down the Persian Gulf (as other things suggest) and to India.

"The Aryan invasion of India and civilization at the earliest is not before the XVIIIth dynasty, and has nothing to do with the earlier ages in Egypt."

Side by side with these resemblances an equally striking series of differences can be made out, and whatever connection there may have been between India and Egypt in early days seems certainly to have been indirect. There is nothing to show that there was a direct influence on the part of Egypt over India, or of India over Egypt.

A common source of ideas seems the most probable explanation, and the drying up of some intermediate country may well have led both to Egypt and India receiving ideas or peoples from the same parts, and, perhaps, at very different dates.

The iron found in India may be a mere side issue, an industry of jungle tribes; and those who used this form of burial may themselves have been ignorant of how to smelt the ore.

All this, however, is mere conjecture, and the main object of drawing attention to the similarities between early Egypt and India is to emphasize the contention that the mass of material which awaits investigation in India has not yet received the attention which it deserves.

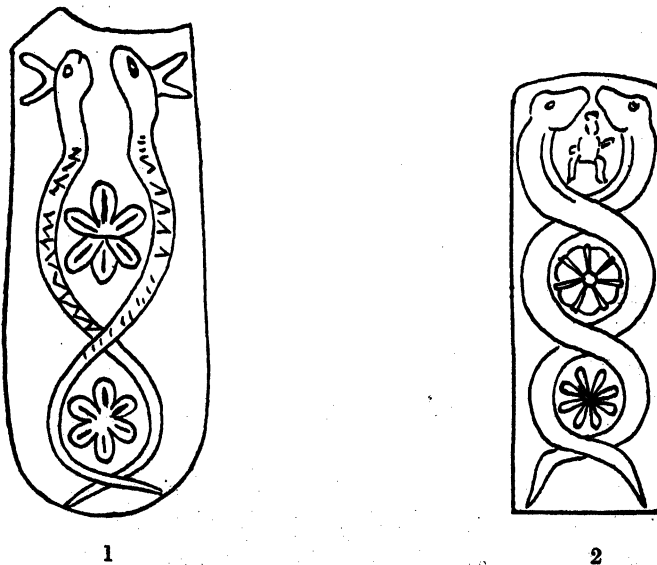


FIG. 3.—ENTWINED SNAKES.

1 Prehistoric Egypt.

2 India.

(From *Ancient Egypt*, 1917, Part I).

RAIGIR CAIRN FIELD

RAIGIR CAIRN FIELD, SHOWING CAIRNS XVII, XVIII, XIX, UNOPENED.







HYDERABAD CAIRN BURIALS AND THEIR SIGNIFICANCE.





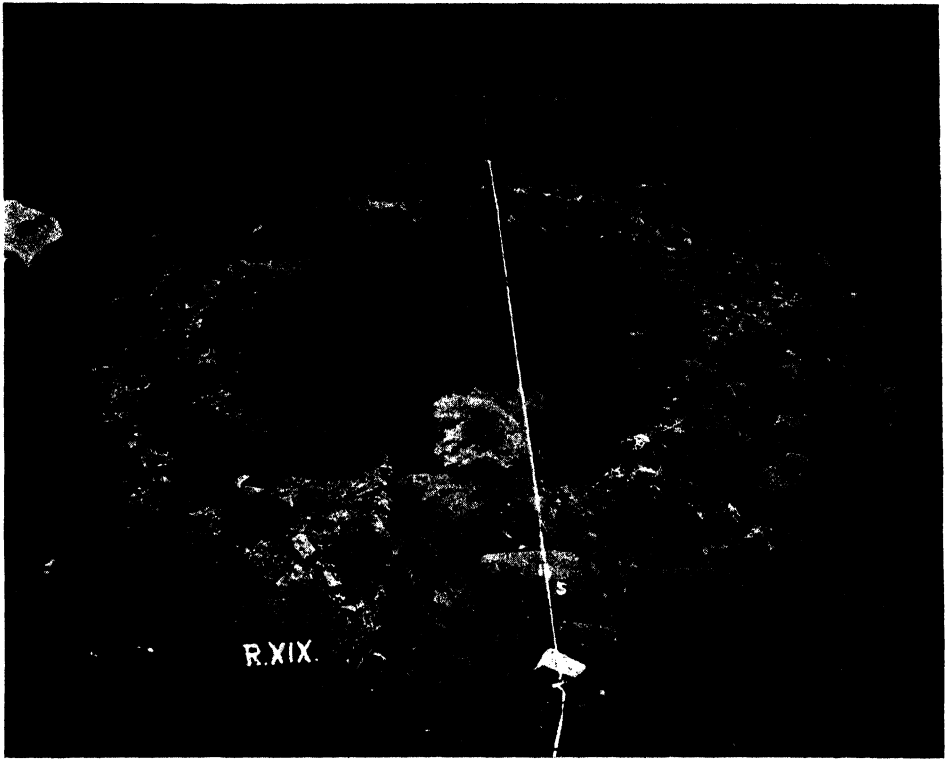


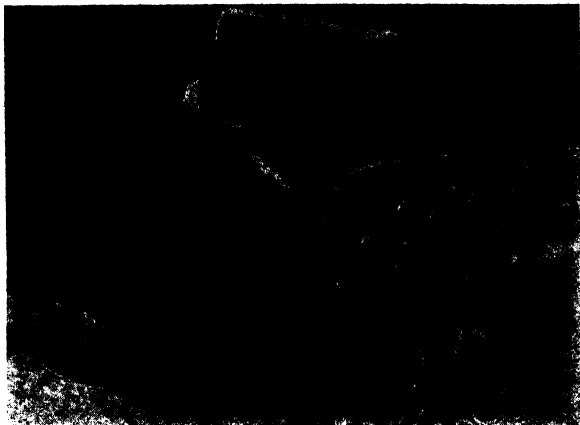
FIG. 1.—RAIGIR XIX. LOOKING INTO THE EXCAVATION.



FIG. 2.—RAIGIR XIX. PLAN-VIEW OF EXCAVATION AND CIST, WITH POTS.

HYDERABAD CAIRN BURIALS AND THEIR SIGNIFICANCE.

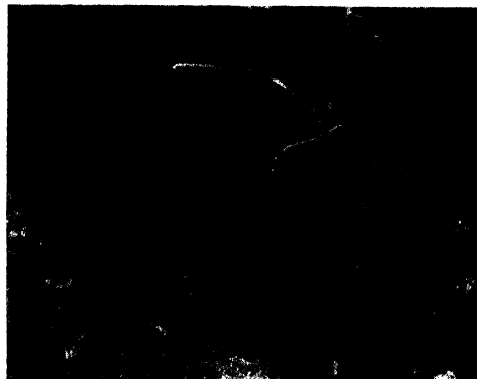




1.



2.



3.



4.



5.

BOWENPILLY I, SHOWING SUCCESSIVE STAGES OF OPENING OF THE CIST.

HYDERABAD CAIRN BURIALS AND THEIR SIGNIFICANCE.





FIG. 1.—RAIGIR XIII. INTERIOR OF CIST, SHOWING BEADS, IRON TRIDENT, URN BURIAL, &C.

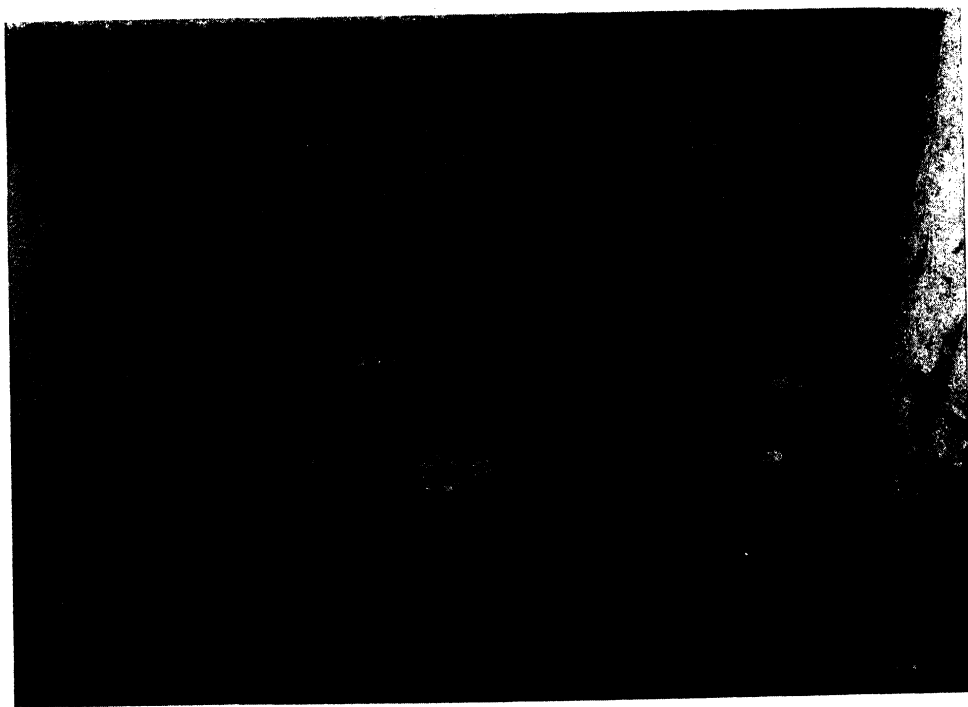


FIG. 2.—RAIGIR XXI. INTERIOR OF CIST.

HYDERABAD CAIRN BURIALS AND THEIR SIGNIFICANCE.



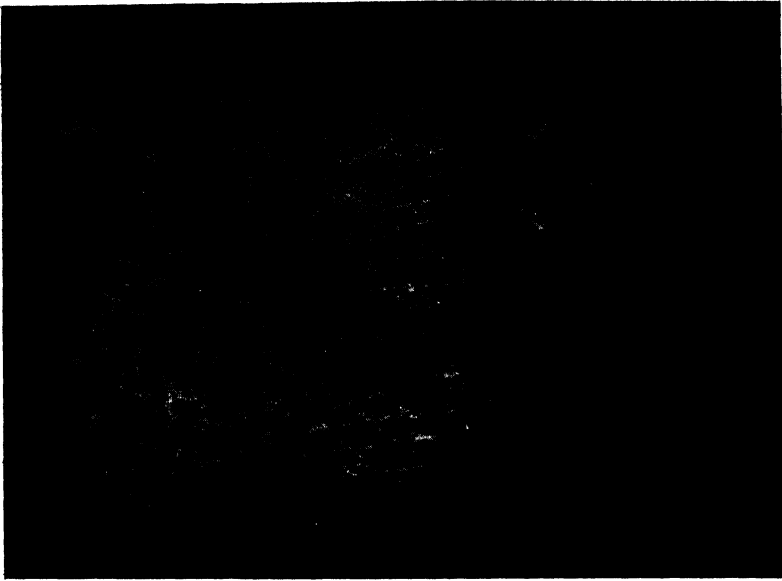


FIG. 2.—PAINTED POT FROM THE SAME CAIRN, PARTIALLY RECONSTRUCTED.  $\times$  ABOUT  $\frac{1}{2}$ .

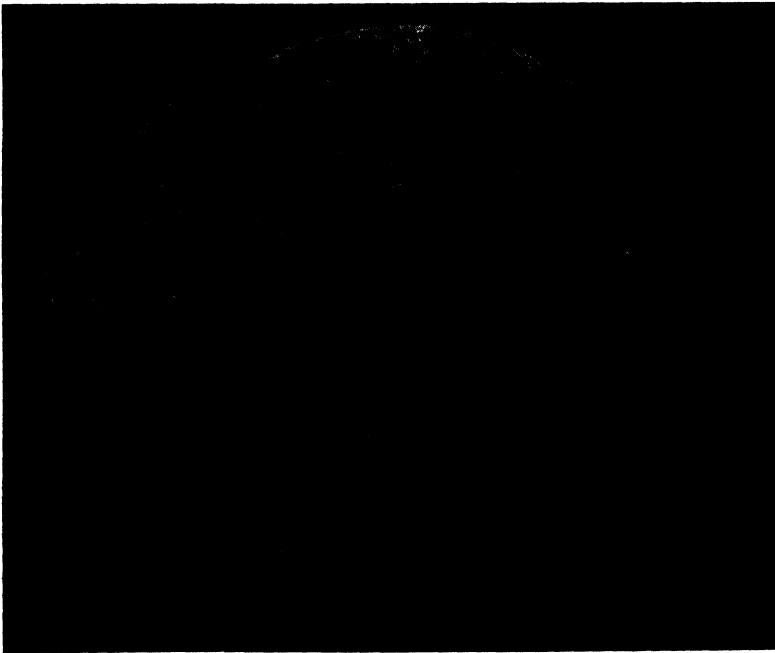


FIG. 1.—UNUSUALLY FINE PAINTED POT FROM RAIGIR X, FOUND OUTSIDE THE CIST, TO THE SOUTH-EAST.  $\times$   $\frac{2}{3}$ .





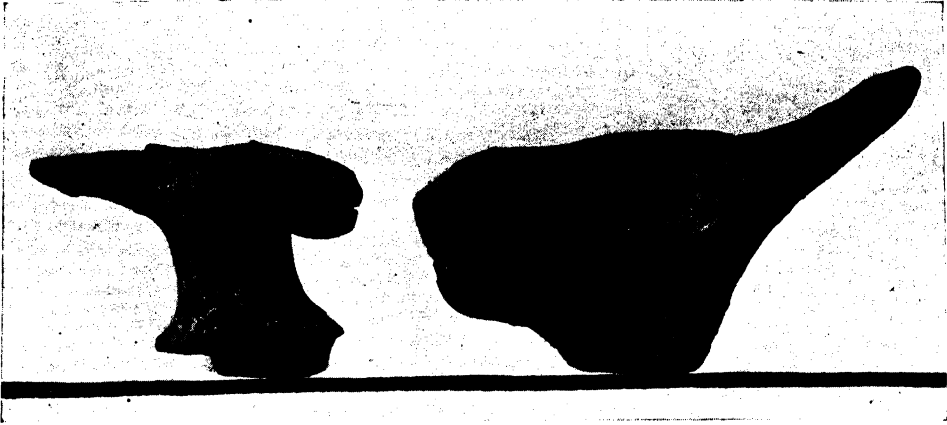


FIG. 1.—MOTAMURREE.

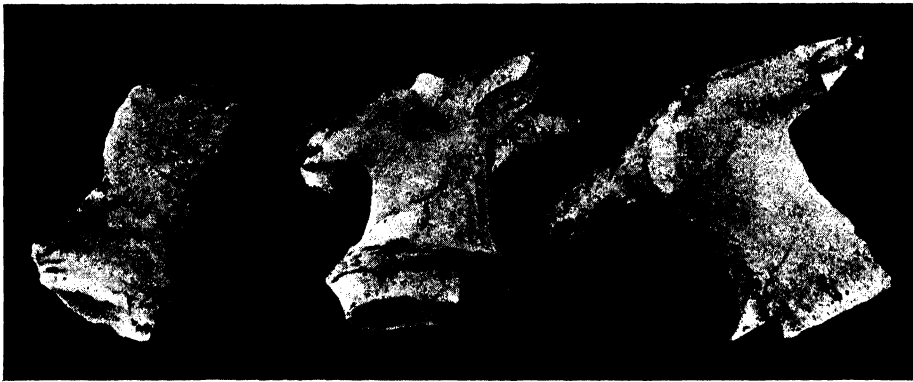


FIG. 2.—TO SHOW SOCKET BASES.

HEADS OF RAMS (CLAY) FROM MOTAMURREE.

HYDERABAD CAIRN BURIALS AND THEIR SIGNIFICANCE.







